

**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.00	Rating **	A	Issue No.	2
LM End	0.00	Issue Type +	Ma	Location *	
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Operations & Maintenance Manuals				
DWR ID	DWR_RD2091_01_s_2013_2				
Comment Code					
Inspector Comment					
The LMA has copy of O & M manual on file at district office.					

No Photos

LM Start	0.00	Rating **	A	Issue No.	4
LM End	0.00	Issue Type +	Ma	Location *	
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Emergency Supplies & Equipment				
DWR ID	DWR_RD2091_01_s_2013_4				
Comment Code					
Inspector Comment					
The LMA maintains adequate flood fight supplies and equipment.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.00	Rating **	A	Issue No.	5
LM End	0.00	Issue Type +	Ma	Location *	
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Flood Preparedness & Training				
DWR ID	DWR_RD2091_01_s_2013_5				
Comment Code					
Inspector Comment					
The LMA maintains a good working knowledge of flood response activities and has been involved in flood fight training.					

No Photos

LM Start	0.00	Rating **	M	Issue No.	19
LM End	7.45	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.541456 °	37.478927 °
				-121.092793 °	-121.044666 °
DWR ID	DWR_RD2091_01_s_2018_19				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	0.00	Rating **	M	Issue No.	27
LM End	7.45	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.541456 °	37.478927 °
				-121.092793 °	-121.044666 °
DWR ID	DWR_RD2091_01_s_2018_27				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.08	Rating **	M	Issue No.	45
LM End	0.08	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.541970 °	37.541970 °
				-121.093980 °	-121.093980 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:43207 DS_ID:23155 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Appears abandoned and if so should be done so properly. FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through the levee, 7.2 feet below the crown. Slide gate in a 36-inch corrugated metal pipe (CMP) riser on the waterside (WS) slope. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 6, September 1961, (HLM 0.07), Drawing No. 07-04-1555, Sheets 1555/17 and 1555/55, (Station 906+85)]. FS Date: 1/29/2015 2:26:31 PM					

LM Start	0.08	Rating **	M	Issue No.	45 (cont)
LM End	0.08	Issue Type +	Ma	Location *	

Photo 1 of 3 : UCIP_SP_2018_43207_38148.jpg



Slide gate in 36-inch CMP riser on WS toe.

Photo 2 of 3 : UCIP_SP_2018_43207_38147.jpg



Slide gate in 36-inch CMP riser on WS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.08	Rating **	M	Issue No.	45 (cont)	
LM End	0.08	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP LMA Responsibility			37.541970 °		37.541970 °
				-121.093980 °		-121.093980 °
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:43207 DS_ID:23155 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Appears abandoned and if so should be done so properly. FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through the levee, 7.2 feet below the crown. Slide gate in a 36-inch corrugated metal pipe (CMP) riser on the waterside (WS) slope. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 6, September 1961, (HLM 0.07), Drawing No. 07-04-1555, Sheets 1555/17 and 1555/55, (Station 906+85)]. FS Date: 1/29/2015 2:26:31 PM						

Photo 3 of 3 : UCIP_SP_2018_43207_38146.jpg



CMP stormdrain at outlet off WS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.10	Rating **	U	Issue No.	46
LM End	0.10	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.542030 °	37.542030 °
				-121.094370 °	-121.094370 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:51387
DS_ID:23156
EP_NO: N/A
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 11/18/2016 Same as last inspection this is a non-functional crossing with no visible inlet on LS or outlet on WS. The only appurtenance found at this location is a CMP riser with a missing cover located on the WS. This crossing remains Urgent since the pipe on the WS may still be opened. According to Mike Alves, this crossing is abandoned and the City of Modesto is working with CVFPB to authorize proper abandonment/removal. The City is working at finding funds to pay for proper abandonment/removal of all the drainage structures through this levee. (O. Magana - DWR UCIP)01/29/2015 Pipe open on WS and slide gate has been removed. Appears abandoned and should be done so properly. (M. Alves - City of Modesto)
FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through the levee, 9 feet below the crown. Slide gate in a corrugated metal pipe (CMP) riser located on the waterside (WS) slope.
[Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 6, September 1961, (HLM 0.10), Drawing No. 07-04-1555, Sheets 1555/17 and 1555/55, (Station 907+55)].
FS Date: 11/18/2016

LM Start	0.10	Rating **	U	Issue No.	46 (cont)
LM End	0.10	Issue Type +	Ma	Location *	

Photo 1 of 3 : UCIP_SP_2018_51387_38150.jpg



36-inch CMP riser on WS slope.

Photo 2 of 3 : UCIP_SP_2018_51387_38149.jpg



Slide gate missing from open end of pipe at WS slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.10	Rating **	U	Issue No.	46 (cont)
LM End	0.10	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.542030 °	37.542030 °
				-121.094370 °	-121.094370 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:51387
DS_ID:23156
EP_NO: N/A
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 11/18/2016 Same as last inspection this is a non-functional crossing with no visible inlet on LS or outlet on WS. The only appurtenance found at this location is a CMP riser with a missing cover located on the WS. This crossing remains Urgent since the pipe on the WS may still be opened. According to Mike Alves, this crossing is abandoned and the City of Modesto is working with CVFPB to authorize proper abandonment/removal. The City is working at finding funds to pay for proper abandonment/removal of all the drainage structures through this levee. (O. Magana - DWR UCIP)01/29/2015 Pipe open on WS and slide gate has been removed. Appears abandoned and should be done so properly. (M. Alves - City of Modesto)
FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through the levee, 9 feet below the crown. Slide gate in a corrugated metal pipe (CMP) riser located on the waterside (WS) slope. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 6, September 1961, (HLM 0.10), Drawing No. 07-04-1555, Sheets 1555/17 and 1555/55, (Station 907+55)].
FS Date: 11/18/2016

Photo 3 of 3 : UCIP_SP_2018_51387_76669.jpg



Overview of levee crown at pipe crossing.

LM Start	0.23	Rating **	M	Issue No.	15
LM End	0.23	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.541550 °	37.541550 °
				-121.096742 °	-121.096742 °
DWR ID	DWR RD2091 01 s 2016 15				

Comment Code

E1 : Note and monitor erosion site.

Inspector Comment

Caving on landward shoulder possible collapsed pipe. Caving is 34 feet long over one inch depth.

Photo 1 of 2 : SP_2018_RD2091_318_15_20180307_00015.jpg



Looking southwest at the dip on the landside shoulder.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.23	Rating **	M	Issue No.	15 (cont)	
LM End	0.23	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start	End	
Item	Erosion / Bank Caving			37.541550 °	37.541550 °	
				-121.096742 °	-121.096742 °	
DWR ID	DWR_RD2091_01_s_2016_15					
Comment Code						
E1 : Note and monitor erosion site.						
Inspector Comment						
Caving on landward shoulder possible collapsed pipe. Caving is 34 feet long over one inch depth.						

Photo 2 of 2 : SP_2018_RD2091_318_15_20180307_00016.jpg



Looking northeast at the dip in the landside shoulder.

LM Start	0.24	Rating **	U	Issue No.	47
LM End	0.24	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.541564 °	37.541564 °
				-121.096792 °	-121.096792 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:51388 DS_ID:23158 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Same as last inspection. This crossing remains Urgent due to the flap gate still missing from the WS toe. According to Mike A. this crossing is an abandoned line and the City of Modesto is working with CVFPB to authorize proper abandonment/removal. The City is working at finding funds to pay for proper abandonment/removal of all the drainage structures through this levee. (O. Magana - DWR UCIP)01/29/2015 Flap gate has fallen off at WS toe. Appears abandoned and if so should be done so properly. (M. Alves - City of Modesto) FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through the levee, 10 feet below the crown. Flap gate on the waterside (WS) end. Drain opening is located approximately 15 feet off the landside (LS) toe. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 6, September 1961, (HLM 0.23), Drawing No. 07-04-1555, Sheets 1555/17 and 1555/55, (Station 915+00)]. FS Date: 11/18/2016					

Photo 1 of 3 : UCIP_SP_2018_51388_38156.jpg



Pipe visible in canal on WS toe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.24	Rating **	U	Issue No.	47 (cont)
LM End	0.24	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.541564 °	37.541564 °
				-121.096792 °	-121.096792 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:51388
DS_ID:23158
EP_NO: N/A
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 11/18/2016 Same as last inspection. This crossing remains Urgent due to the flap gate still missing from the WS toe.
According to Mike A. this crossing is an abandoned line and the City of Modesto is working with CVFPB to authorize proper abandonment/removal. The City is working at finding funds to pay for proper abandonment/removal of all the drainage structures through this levee. (O. Magana - DWR UCIP)01/29/2015 Flap gate has fallen off at WS toe. Appears abandoned and if so should be done so properly. (M. Alves - City of Modesto)
FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through the levee, 10 feet below the crown. Flap gate on the waterside (WS) end. Drain opening is located approximately 15 feet off the landside (LS) toe. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 6, September 1961, (HLM 0.23), Drawing No. 07-04-1555, Sheets 1555/17 and 1555/55, (Station 915+00)].
FS Date: 11/18/2016

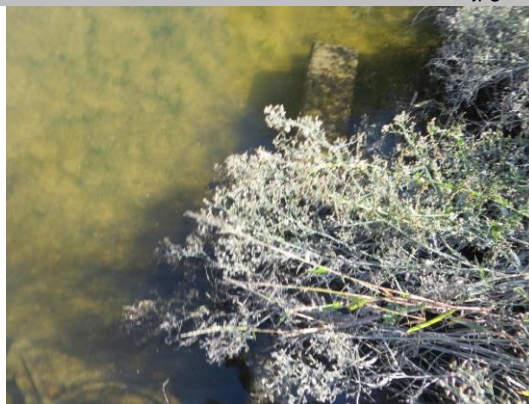
LM Start	0.24	Rating **	U	Issue No.	47 (cont)
LM End	0.24	Issue Type +	Ma	Location *	

Photo 2 of 3 : UCIP_SP_2018_51388_38155.jpg



Flapgate has fallen off at WS toe.

Photo 3 of 3 : UCIP_SP_2018_51388_38154.jpg



Concrete headwall under pipe at WS toe.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/A : Not Applicable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.25	Rating **	M	Issue No.	16
LM End	0.28	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.541492 °	37.541408 °
				-121.097052 °	-121.097453 °
DWR ID	DWR_RD2091_01_s_2016_16				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Several sites of rill erosion and possible rodent holes along landward shoulder and slope.					

Photo 1 of 2 : SP_2018_RD2091_318_16_20180307_00017.jpg



Looking northwest at rill erosion on landside slope.

LM Start	0.25	Rating **	M	Issue No.	16 (cont)
LM End	0.28	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : SP_2018_RD2091_318_16_20180307_00018.jpg



Looking east at rill erosion above rodent hole on landward slope. (Spring 2017)

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.63	Rating **	M	Issue No.	48 (cont)
LM End	0.63	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.541220 °	37.541220 °
				-121.103880 °	-121.103880 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:51639
DS_ID:23161
EP_NO: N/A
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 11/18/2016 Crossing has been downgraded from Urgent to Non-Urgent since the flap gate appears to fully close. According to Mike Alvez, this crossing is abandoned and the City of Modesto is working with CVFPB to authorize proper abandonment/removal. The City is working at finding funds to pay for proper abandonment/removal of all the drainage structures through this levee. (O. Magana - DWR UCIP)01/29/2015 Appears abandoned and if so should be done so properly. (M. Alvez - City of Modesto)
FIELD_STRUCT_DESC: *ABANDONED* 24-inch corrugated metal drainage pipe through the levee, 12 feet below the crown. Flap gate and concrete headwall on the waterside (WS) end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 6, September 1961, (HLM 0.64)].
FS Date: 11/18/2016

Photo 3 of 3 : UCIP_SP_2018_51639_76677.jpg



View of LS.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	0.94	Rating **	A/W	Issue No.	14
LM End	6.84	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.537775 °	37.482295 °
				-121.106730 °	-121.051592 °
DWR ID	DWR_RD2091_01_f_2017_14				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Wave wash damage/erosion of 2 miles ... see attached description and photos					
Site ID No:471					
Site Designation:LMA-298					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/20/2017					
Notes: Low priority because wavewash scarps are less than 1 ft and do not cut into prism significantly and can be repaired by district through O&M. There is also a large berm here. Wavewash is present on both LS and WS.					

Photo 1 of 3 : LEVAL_SP_2018_471_2337.jpg



LM Start	0.94	Rating **	A/W	Issue No.	14 (cont)
LM End	6.84	Issue Type +	Ma	Location *	

Photo 2 of 3 : LEVAL_SP_2018_471_2338.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	1.41	Rating **	A/W	Issue No.	24	
LM End	1.44	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			37.531170°	37.530760°	
				-121.106750°	-121.106710°	
DWR ID	DWR_RD2091_01_f_2017_24					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:						
Site ID No:132						
Site Designation:DWR_RD2091_01_R_2012_01						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:6/7/2017						
Notes: Wavewash erosion up to 12" deep at high water mark.						

Photo 1 of 3 : LEVAL_SP_2018_132_1181.jpg



LM Start	1.41	Rating **	A/W	Issue No.	24 (cont)
LM End	1.44	Issue Type +	Ma	Location *	

Photo 2 of 3 : LEVAL_SP_2018_132_1182.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	1.41	Rating **	A/W	Issue No.	24 (cont)	
LM End	1.44	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			37.531170°	37.530760°	
				-121.106750°	-121.106710°	
DWR ID	DWR_RD2091_01_f_2017_24					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:						
Site ID No:132						
Site Designation:DWR_RD2091_01_R_2012_01						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:6/7/2017						
Notes: Wavewash erosion up to 12" deep at high water mark.						

Photo 3 of 3 : LEVAL_SP_2018_132_1187.jpg



LM Start	2.00	Rating **	A/W	Issue No.	17
LM End	2.03	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.526646 °	37.526259 °
				-121.099810 °	-121.099464 °
DWR ID	DWR_RD2091_01_f_2017_17				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD2091_318_17_20180307_00019.jpg



Looking southeast at the landside slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	2.05	Rating **	M	Issue No.	18	
LM End	2.06	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Erosion / Bank Caving			37.526083 °		37.525897 °
				-121.099328 °		-121.099116 °
DWR ID	DWR_RD2091_01_f_2017_18					
Comment Code						
E2 : Schedule repair of erosion site prior to the next inspection.						
Inspector Comment						
Erosion at the landside toe.						

Photo 1 of 1 : SP_2018_RD2091_318_18_20180307_00020.jpg



Looking southeast at erosion on the toe of the landside slope.

LM Start	2.61	Rating **	A/W	Issue No.	20
LM End	2.64	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.520108 °	37.520027 °
				-121.093147 °	-121.092767 °
DWR ID	DWR_RD2091_01_s_2017_20				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

LM Start	3.90	Rating **	C	Issue No.	21
LM End	3.90	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.506902 °	37.506902 °
				-121.082771 °	-121.082771 °
DWR ID	DWR_RD2091_01_s_2017_21				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Sinkhole at landward side toe					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	4.83	Rating **	A/W	Issue No.	34
LM End	4.83	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Erosion / Bank Caving		37.494396 °	37.494396 °	
			-121.078306 °	-121.078306 °	
DWR ID	DWR_RD2091_01_f_2017_34				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

No Photos

LM Start	4.83	Rating **	A/W	Issue No.	41
LM End	4.83	Issue Type +	Ma	Location *	
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	2017 Storm Damage		37.494300 °	37.494300 °	
			-121.078300 °	-121.078300 °	
DWR ID	DWR_RD2091_01_f_2017_41				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:					
Site ID No:117					
Site Designation:LMA-37					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:6/7/2017					
Notes: Very minor erosion at toe of levee. Depth of erosion is 3" max.					

Photo 1 of 3 : LEVAL_SP_2018_117_325.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	4.83	Rating **	A/W	Issue No.	41 (cont)	
LM End	4.83	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			37.494300 °	37.494300 °	
				-121.078300 °	-121.078300 °	
DWR ID	DWR_RD2091_01_f_2017_41					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:						
Site ID No:117						
Site Designation:LMA-37						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:6/7/2017						
Notes: Very minor erosion at toe of levee. Depth of erosion is 3" max.						

Photo 2 of 3 : LEVAL_SP_2018_117_854.jpg



Photo 3 of 3 : LEVAL_SP_2018_117_855.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	4.84	Rating **	U	Issue No.	10
LM End	4.85	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.494297 °	37.494115 °
				-121.078233 °	-121.078100 °
DWR ID	DWR_RD2091_01_f_2016_10				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Several large rodent holes on landward slope.					

LM Start	4.84	Rating **	U	Issue No.	10 (cont)
LM End	4.85	Issue Type +	Ma	Location *	LS

Photo 1 of 4 : SP_2018_RD2091_318_10_20180307_00003.jpg



Looking southeast at landside slope.

Photo 2 of 4 : SP_2018_RD2091_318_10_20180307_00004.jpg



Looking south at several rodent holes on landward slope.

LM Start	4.84	Rating **	U	Issue No.	10 (cont)
LM End	4.85	Issue Type +	Ma	Location *	LS

Photo 3 of 4 : SP_2018_RD2091_318_10_20180307_00005.jpg



Looking south at close-up view of rodent holes on landward slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain			

**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	4.84	Rating **	U	Issue No.	10 (cont)	
LM End	4.85	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start	End	
Item	Animal Control			37.494297 °	37.494115 °	
				-121.078233 °	-121.078100 °	
DWR ID	DWR_RD2091_01_f_2016_10					
Comment Code						
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.						
Inspector Comment						
Several large rodent holes on landward slope.						

Photo 4 of 4 : SP_2018_RD2091_318_10_20180307_00006.jpg



Looking west at close-up view of rodent holes on landward slope.

LM Start	5.20	Rating **	A/W	Issue No.	13
LM End	5.20	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			37.490756 °	37.490756 °
				-121.073410 °	-121.073410 °
DWR ID	DWR_RD2091_01_f_2016_13				
Comment Code					
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.					
Inspector Comment					
Vehicle traffic damaging slope on landward slope.					

Photo 1 of 2 : SP_2018_RD2091_318_13_20180307_00010.jpg



Looking southeast at the landside slope.

LM Start	5.20	Rating **	A/W	Issue No.	13 (cont)
LM End	5.20	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : SP_2018_RD2091_318_13_20180307_00011.jpg



Looking at damage on landside slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	5.66	Rating **	M	Issue No.	28
LM End	5.66	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.486101 °	37.486101 °
				-121.067620 °	-121.067620 °
DWR ID	DWR_RD2091_01_s_2018_28				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	5.81	Rating **	M	Issue No.	29
LM End	5.81	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.485553 °	37.485553 °
				-121.065280 °	-121.065280 °
DWR ID	DWR_RD2091_01_s_2018_29				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	5.92	Rating **	M	Issue No.	12
LM End	5.92	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.485998 °	37.485998 °
				-121.063323 °	-121.063323 °
DWR ID	DWR_RD2091_01_f_2015_12				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD2091_318_12_20180503_00050.jpg



Looking southeast at untrimmed tree at landward toe. (Spring 2018)

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	6.23	Rating **	M	Issue No.	36
LM End	6.27	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.485724 °	37.485234 °
				-121.058443 °	-121.058032 °
DWR ID	DWR_RD2091_01_f_2017_36				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD2091_318_36_20180307_00031.jpg



Looking southeast at landside slope.

LM Start	6.87	Rating **	M	Issue No.	37
LM End	6.94	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.482021 °	37.481994 °
				-121.051260 °	-121.049991 °
DWR ID	DWR_RD2091_01_f_2017_37				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	7.42	Rating **	U	Issue No.	8
LM End	7.45	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.479308 °	37.478998 °
				-121.044708 °	-121.044660 °
DWR ID	DWR_RD2091_01_s_2017_8				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Repaired area with concrete containing rebar. Need to remove rebar.					

Photo 1 of 3 : SP_2018_RD2091_318_8_20180307_00001.jpg



Looking northeast at concrete rubble with rebar at landward toe next to canal.

LM Start	7.42	Rating **	U	Issue No.	8 (cont)
LM End	7.45	Issue Type +	Ma	Location *	LS

Photo 2 of 3 : SP_2018_RD2091_318_8_20180307_00002.jpg



Looking east at concrete rubble with rebar at landward toe next to canal.

LM Start	7.42	Rating **	U	Issue No.	8 (cont)
LM End	7.45	Issue Type +	Ma	Location *	LS

Photo 3 of 3 : SP_2018_RD2091_318_8_20180503_00051.jpg



Looking east at repaired site on waterward slope and toe. (Spring 2018)

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	7.45	Rating **	A/W	Issue No.	23
LM End	7.45	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.479000 °	37.479000 °
				-121.044000 °	-121.040000 °
DWR ID	DWR_RD2091_01_f_2017_23				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Sloughing at Mile 7.59 of the San Joaquin River					
Site ID No:473					
Site Designation:LMA-300					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/20/2017					
Notes: Concrete rubble was installed here during the storms after noticing cracks and sloughing. It has rebar sticking out and needs to be replaced with clean rip rap. Responsibility is grey here because TID maintains channel and placed concrete during storm.					

Photo 1 of 3 : LEVAL_SP_2018_473_2326.jpg



LM Start	7.45	Rating **	A/W	Issue No.	23 (cont)
LM End	7.45	Issue Type +	Ma	Location *	

Photo 2 of 3 : LEVAL_SP_2018_473_2330.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Right	7.46	05/01/2018 05/01/2018	Richard Willoughby

LM Start	7.45	Rating **	A/W	Issue No.	23 (cont)	
LM End	7.45	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			37.479000 °	37.479000 °	
				-121.044000 °	-121.040000 °	
DWR ID	DWR_RD2091_01_f_2017_23					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:Sloughing at Mile 7.59 of the San Joaquin River						
Site ID No:473						
Site Designation:LMA-300						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:7/20/2017						
Notes: Concrete rubble was installed here during the storms after noticing cracks and sloughing. It has rebar sticking out and needs to be replaced with clean rip rap. Responibility is grey here because TID maintains channel and placed concrete during storm.						

Photo 3 of 3 : LEVAL_SP_2018_473_2331.jpg



* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 2091 Chase

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River		0.05	05/01/2018 05/01/2018	Richard Willoughby

LM Start		Rating **		Issue No.	
LM End		Issue Type +	--	Location *	
Category			GPS Latitude/Longitude		
			Start		End
Item				°	
				°	
DWR ID					
Comment Code					
Inspector Comment					
No issues were reported.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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